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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/283,192	04/01/1999	YUTAKA KURABAYASHI	35.C1331	9638

5514 7590 02/26/2003

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EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 02/26/2003

27

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/283,192	KURABAYASHI, YUTAKA	
	<b>Examiner</b>	<b>Art Unit</b>	
	Callie E. Shosho	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 December 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 63-70 and 73-82 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 63-70 and 73-82 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. All outstanding rejections except for those described below are overcome by applicant's amendment filed 12/3/02.

**Claim Rejections - 35 USC § 112**

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

*The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.*

3. Claims 63-70 and 73-82 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for solid concentration of 8% (as found in the examples), does not reasonably provide enablement for any solids concentration of self-dispersing pigment and resin encapsulating a coloring material. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. That is, while the examples of the present specification disclose the use of self-dispersing pigment and resin encapsulating a coloring material or self-dispersing pigment only in solids concentration of 8%, there does not appear to be any disclosure in the specification for self-dispersing pigment and resin encapsulating a coloring material at any solids concentration.

Case law holds that applicant's specification must be "commensurately enabling [regarding the scope of the claims]" *Ex Parte Kung*, 17 USPQ2d 1545, 1547 (Bd. Pat. App. Inter. 1990). Otherwise **undue experimentation** would be involved in determining how to practice

and use applicant's invention. The test for undue experimentation as to whether or not all compounds within the scope of claims 63-70 and 73-82 can be used as claimed and whether claims 63-70 and 73-82 meet the test is stated in *Ex parte Forman*, 230 USPQ 546, 547 (Bd. Pat. App. Inter. 1986) and *In re Wands*, 8 USPQ2d 1400, 1404 (Fed.Cir. 1988). Upon applying this test to claims 63-70 and 73-82, it is believed that undue experimentation **would** be required because:

(a) *The quantity of experimentation necessary* is **great** since claims 63-70 and 73-82 read on any solids concentration of self-dispersing pigment and the resin encapsulating a coloring material

(b) There is **no direction or guidance presented** for making an ink comprising any solids concentration of self-dispersing pigment and the resin encapsulating a coloring material.

(c) There is an **absence of working examples** concerning making ink comprising any solids concentration of self-dispersing pigment and the resin encapsulating a coloring material.

In light of the above factors, it is seen that undue experimentation would be necessary to make and use the invention of claims 63-70 and 73-80.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 63-70 and 73-82 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 82 recites the self-dispersing pigment and the resin encapsulating a coloring material are dispersed in aqueous medium “at a certain solid concentration”. The scope of the claim is confusing because it is not clear what is meant by the phrase. What solid concentrations does this encompass? Does the phrase “a certain solid concentration” represent a specific value of solids concentration or can the “certain” solid concentration be any value, i.e. 1%, 5%, 10%, etc.?

#### **Response to Arguments**

6. Applicant’s arguments filed 12/3/02 have been fully considered but they are not persuasive.

Before setting forth applicants’ arguments, it is noted that claim 82 has been amended to change the phrase “a solid concentration A” to “a certain solid concentration”. However, as seen by the above rejections, which are virtually identical to those set forth in paragraphs 5 and 7(a) of the office action mailed 11/8/02, Paper No. 25, it is the examiner’s position that the phrases mean the same thing and that the change does not overcome the 35 USC 112 rejections of record.

It is the examiner’s position that the phrase “a certain solid concentration” does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use the invention commensurate in scope with the present claims. The phrase encompasses any solids concentration. That is, such phrase encompasses values 1%, 5%, 10%, 25%, etc. However, there is no disclosure in the specification for using self-dispersing pigment and resin encapsulating a coloring material at any solids concentration. The

specification only discloses the use of self-dispersing pigment and resin encapsulating a coloring material at 8% solids concentration.

Applicants argues that given that the present invention relates to an ink jet ink and given that it is common technical knowledge that there is a practical upper limit to the solid content in an ink jet ink (if the solid content is too high, ink will clog printer nozzles), no undue experimentation would be required for a person skilled in the art to practice and use the invention.

However, the examiner's position remains that undue experimentation would be involved in determining how to practice and use applicant's invention given that there is an absence of working examples concerning making ink comprising any solids concentration of self-dispersing pigment and resin encapsulating a coloring material, there is no direction or guidance presented for making ink comprising any solids concentration of self-dispersing pigment and resin encapsulating a coloring material, and the quantity of experimentation is great since the present claims read on any solids concentration of self-dispersing pigment and resin encapsulating a coloring material.

While it is well known that ink jet inks must possess solids amount such that the inks will not clog the printer, this still does not enable one of ordinary skill in the art to determine the "certain amount" of self-dispersing pigment and resin encapsulating a coloring material required to provide an ink jet ink recorded image with certain optical density that is equivalent to that produced with an ink containing self-dispersing pigment as the sole colorant at the certain solid concentration. In the present specification, it is only the examples that disclose that ink using self-dispersing pigment and resin encapsulating a coloring material at 8% produces image with

optical density that is equivalent to that produced with ink containing self-dispersing pigment at 8%. Besides the examples at this one amount, there is no disclosure in present specification regarding concentration of self-dispersing pigment and resin encapsulating a coloring material necessary to produce optical density as presently claimed and thus, the specification does not reasonably provide enablement for any solids concentration of self-dispersing pigment and resin encapsulating a coloring material as presently claimed.

- Further, it is noted that the amount of solids present in an ink jet ink is not only based on the amount which will not clog the printer nozzles. Other factors will also influence the amount of solids present in the ink include the desired viscosity of the ink, the desired print density of the ink, stability of the ink, etc.

Thus, it is the examiner's position that undue experimentation would be necessary to make and use the invention of claims 63-70 and 73-80.

With respect to the 35 USC 112 second paragraph rejection of record, applicant states that changing the phrase "a solid concentration A" to "a certain solid concentration" overcomes examiner's rejection against the claim. However, is the examiner's position that scope of the claim is still confusing because it is not clear what is meant by the phrase. What solid concentrations does this encompass? Does the phrase "a certain solid concentration" represent a specific value of solids concentration or can the "certain" solid concentration be any value, i.e. 1%, 5%, 10 5, etc.?

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

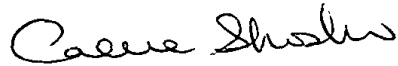
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Callie E. Shosho

Examiner

Art Unit 1714

CS

2/22/03